DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-015946
Date Inspected: 01-Aug-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang and Zhu Zhong Hai

CWI Present:	☑ Yes	☐ No		**Inspected CWI report:**	☐ Yes	☐ No	☑ N/A	
Rod Oven in Use:	☑ Yes	☐ No	☐ N/A	**Electrode to specification:**	☑ Yes	☐ No	☐ N/A	
Weld Procedures Followed:	☑ Yes	☐ No	☐ N/A	**Qualified Welders:**	☑ Yes	☐ No	☐ N/A	
Verified Joint Fit-up:	☐ Yes	☑ No	☐ N/A	**Approved Drawings:**	☑ Yes	☐ No	☐ N/A	
Approved WPS:	☑ Yes	☐ No	☐ N/A					
Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A					

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 9EW to 10EW

This QA Inspector performed Dimension Control Inspection for measuring Root Gap and Offset at the Transverse Splice for the Segment 9EW to Segment 10AW between Panel Point (PP) 85 to PP 86 at the following locations:

Work Point E5 towards Work Point E2 (Deck Panel).

Work Point E2 towards Work Point E1 (Edge Panel Bike Path Side).

Work Point E1 towards Work Point E3 (Edge Panel Bike Path Side).

Work Point E3 towards Work Point E4 (Bottom Panel).

Work Point E4 towards Work Point E6 (Side Panel Counter Weight Side).

Work Point E6 towards Work Point E5 (Edge Panel Cross Beam Side).

The QA Inspector measured the Root Gap using 1(One) Taper Gauge and measured the Offset using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10AW

This QA Inspector verified and checked the Snug Tightening for the bolts size M16x45, M16x50 and M16X65 installed at T-Ribs Clips connecting the Floor Beam at Side Panel (Cross Beam and Counter Weight side) and at the Bottom Panel for the Segment 10AW at Panel Points (PP) 86, PP 87 and PP 88.

The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. Please reference the pictures attached for more comprehensive details.

Segment 9DW to Segment 9EW

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9C-007. The welder identification was 053316 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2133T. The piece mark was identified as the Side Panel Counter Weight side.

Segment 9CW

This QA Inspector observed the in process fillet welding operation by the Flux Cored Arc Welding (FCAW) process. The Weld joint was designated as SP771-001-25/26, SP771-001-27/28 and SP771-001-35/36. The welder identification was 040704 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132. The piece mark was identified as the Side Panel T-Ribs, Cross Beam side.

Segment 9DW

This QA Inspector observed the in process fillet welding operation by the Flux Cored Arc Welding (FCAW) process. The Weld joint was designated as SP772-001-31/32, SP771-001-35/36 and SP771-001-41/42. The welder identification was 040704 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132. The piece mark was identified as the Side Panel T-Ribs, Cross Beam side.

Segment 9CW to Segment 9DW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a

Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP134-001-54, SP134-001-53, SP134-001-46 and SP134-001-44. The welder identification was 057333 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel T-Ribs web at transverse splice weld.

Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA061-006. The welder identification was 067765 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U4b-FCM-1. The piece mark was identified as the Corner Assembly weld at W2 location.

Segment 9DW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA065-002. The welder identification was 067765 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U4b-FCM-1. The piece mark was identified as the Corner Assembly weld at W2 location.

Segment 9AW to Segment 9BW

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9-002. The welder identification was 067571 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Deck Panel transverse splice weld. ZPMC performed repair welding in accordance with BWR-14195.

Traveler Rail Bracket

This QA Inspector observed the repair welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6A-PP80-001. The welder identification was 204342 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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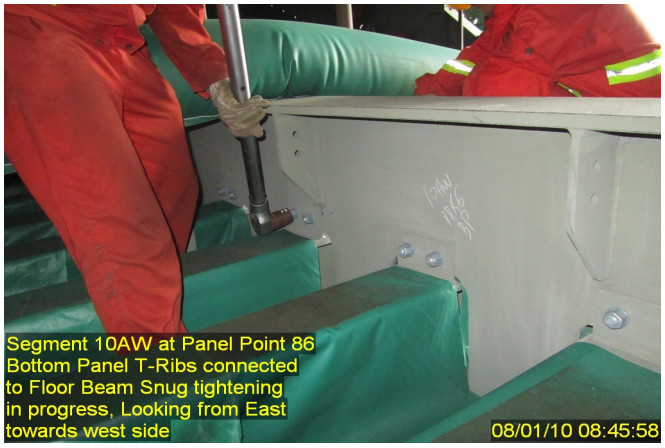

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer